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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/774,577

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Jennifer A. Coggan

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12/04/2008

MCKENNA LONG & ALDRIDGE LLP
1900 K STREET, NW
WASHINGTON, DC 20006

EXAMINER

GARRETT, DAWN L

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

12/04/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/774,577	Applicant(s) COGGAN ET AL.	
	Examiner Dawn Garrett	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 10-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-16 is/are rejected.
- 7) ☒ Claim(s) 1-9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1794

Response to Amendment

1. This Office action is responsive to the amendment received August 19, 2008. Claims 1 and 8 were amended. Claims 1-16 are present in the application.

2. The current species under consideration is the following:

Formula (I) wherein R2 and R3 are heteroaromatic rings (limited to those types as recited in the current claims) and R1 and R4 are hydrogen. In Formula (II) this same species is where R5 and R6 are heteroaromatic rings and R1-R4 are hydrogen. (It is noted that Formulas (III) and (IV) have not been included because of their requirements for R7 and R8 substituent groups, which are not present in the selected species). Claims 10-13 were withdrawn as non-elected.

The examiner inadvertently omitted claims 14-16 from consideration in the last Office action. Accordingly, a rejection is set forth below and this Office action is made non-final.

3. The rejection of claims 1-8 under 35 U.S.C. 102(a) as being anticipated by Matsuura et al. (JP 2003-045662) is withdrawn due to the amendment filed August 19, 2008.

Claim Rejections - 35 USC § 102

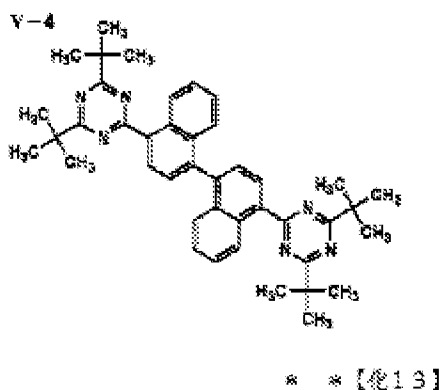
4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 14 and 15 are rejected under 35 U.S.C. 102(a) as being anticipated by Matsuura et al. (JP 2003-045662). Matsuura et al. discloses the following compound (see page 12) in an organic electroluminescent element regarding claim 14:

Art Unit: 1794



The compound reads upon instant formula (I) wherein R2 and R3 are substituted triazyl groups and upon instant formula (II) wherein R5 and R6 are substituted triazyl groups.

Regarding claim 14, Matsuura et al. discloses the inventive compounds are contained in a light-emitting layer (see abstract). Matsuura et al. further discloses fluorescent dopant material (guest substances) in a luminous layer (see par. 51).

Regarding claim 15, Matsuura et al. discloses a coumarin derivative as a dopant material (see par. 51). It is noted the instant specification discloses coumarin as a suitable dopant at par. 48. Matsuura et al. discloses a dopant in a concentration of 1% for a luminous layer (see par. 168). The devices clearly comprise an anode (positive electrode) and a cathode (negative electrode) (see par. 45).

Regarding claim 14, the devices may comprise a hole transporting layer, luminous (light emitting) layer, and an electron transporting layer (see par. 45) and the light emitting layer may comprise the inventive bi-naphthyl compound (see abstract).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1794

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuura et al. (JP 2003-045662) in view of Suzurisato et al. (JP 2002-324676). Matsuura et al. is relied upon as set forth above.

The Matsuura devices may comprise a hole transporting layer, luminous (light emitting) layer, and an electron transporting layer (see par. 45) and the light emitting layer may comprise the inventive bi-naphthyl compound (see abstract). Matsuura et al. is silent with respect to the thickness of the particular layers and the inclusion of a phthalocyanine buffer layer.

Suzurisato et al. teaches in analogous art EL devices having an anode, hole injection layer, hole transportation layer, luminous layer (with a bi-naphthyl type derivative), electron transportation layer, electron injection layer and cathode layer (see par. 159). With regard to claim 16, an indium tin oxide anode can be formed at a thickness of 200nm (see par. 169), the hole injection layer may be formed of copper phthalocyanine (see par. 54) and the buffer layers (the hole injection layer as named by Suzurisato et al.) may be in a thickness of 0.1 to 100 nm (see par. 56), the hole transportation layer is formed of a tertiary amine (see par. 65) and is formed in a thickness of 5nm-5 micrometers (see par. 84), the thickness of the luminous layer is 5nm to 5 micrometers (see par. 119), the cathode may comprise a magnesium and silver alloy of 200 nm thickness (see par. 170). It would have been obvious to one of ordinary skill in the art to have formed functional layers for the Matsuura et al. device as taught by Suzurisato et al., because Suzurisato et al. teaches layers of this configuration with a binaphthyl light emitting

Art Unit: 1794

material provides a well-performing light emitting device and one would expect the layers to be similarly useful in the Matsuura et al. device.

Allowable Subject Matter

8. Allowable subject matter has been previously discussed in the prior office actions based upon previously considered species; please see prior Office actions. No claims are directed solely to those allowable species, so no claims are currently indicated as allowed. With respect to the current species wherein both R2 and R3 in Formula (I) and both R5 and R6 in Formula (II) are furyl, thienyl, pyridyl, triazyl or quinolinyl (or R2 and R3 in Formula I), claims 1-9 appear to comprise allowable subject matter in terms of the current species in that the prior art does not appear to teach a compound in an EL device having furyl, thienyl or pyridyl as set forth in claims 1-9 as both R5 and R6 in instant Formula II (or similarly R2 and R3 in Formula I). Accordingly, claims 1-9 are currently indicated as objected to in terms of the current species under consideration as comprising allowable subject matter; however, not all the species of claims 1-9 have been considered yet.

Response to Arguments

9. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dawn Garrett whose telephone number is (571) 272-1523. The examiner can normally be reached Monday-Friday.

Art Unit: 1794

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dawn Garrett/
Primary Examiner, Art Unit 1794